



FE 6140(US)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of: **Yuri Gulevich et al.**)
Serial No.: **10/577,694**)
Filed: **April 28, 2006**) Examiner: **Ling Siu Choi**
For: **COMPONENTS AND CATALYSTS FOR**)
THE POLYMERIZATION OF OLEFINS) Group Art Unit: **1713**

Mail Stop Amendment
Commissioner for Patents
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October 11, 2007

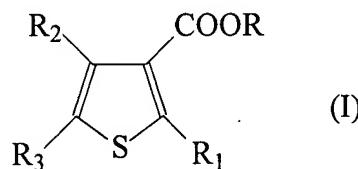
REQUEST FOR RECONSIDERATION

This is in response to the Office Action dated July 25, 2007 in the above-identified application. This response is being timely filed on October 10, 2007. Included with this response is a Supplemental Information Disclosure Statement.

Summarized below is a current listing of the claims:

AMENDMENTS TO THE CLAIMS

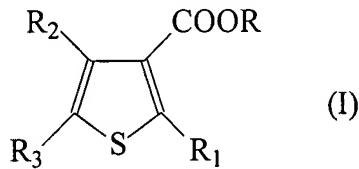
1. (previously presented) A solid catalyst component for the polymerization of olefins comprising Mg, Ti, halogen and an electron donor selected from thiophene derivatives of formula (I):



wherein R is a branched alkyl group, R₁, R₂ and R₃, same or different, are hydrogen, halogen, R⁴, OR⁴, COOR⁴, SR⁴, NR⁴₂ or PR⁴₂, wherein R⁴ is a linear or branched C₁-C₂₀ alkyl, C₂-C₂₀ alkenyl, C₃-C₂₀ cycloalkyl, C₆-C₂₀ aryl, C₇-C₂₀ alkylaryl or C₇-C₂₀ arylalkyl group, optionally containing at least one heteroatom, and at least two of said R₁-R₃ groups can also be joined to form a cycle, with the proviso that at least one of R₁ and R₂ is COOR⁴ and that when R₂ is COO-i-octyl and R is i-octyl, at least one of R₁ and R₃ are different from hydrogen.

2. (previously presented) The catalyst component according to claim 1 in which in the thiophene derivatives of formula (I), R is a primary branched alkyl having from 4 to 15 carbon atoms.
3. (previously presented) The catalyst component according to claim 1 in which in the thiophene derivatives of formula (I), R₂ is a COOR group.
4. (previously presented) The catalyst component according to claim 3 in which at least one of R₁ and R₃ is a C₁-C₂₀ alkyl group.
5. (previously presented) The catalyst component according to claim 1 in which in the thiophene derivatives of formula (I), R₁ is a COOR group.
6. (previously presented) The catalyst component according to claim 5 in which one of R₂ and R₃ of formula (I) are different from hydrogen.
7. (original) The catalyst component of claim 1 comprising a titanium compound having at least a Ti-halogen bond and the thiophene derivatives of formula (I) supported on a Mg halide in active form.
8. (previously presented) A catalyst for the polymerization of olefins comprising the product of the reaction between:

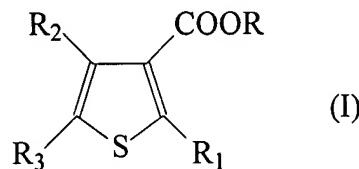
- a solid catalyst component comprising Mg, Ti, halogen and an electron donor selected from thiophene derivatives of formula (I):



wherein R is a branched alkyl group, R₁, R₂ and R₃, same or different, are hydrogen, halogen, R⁴, OR⁴, COOR⁴, SR⁴, NR⁴₂ or PR⁴₂, wherein R⁴ is a linear or branched C₁-C₂₀ alkyl, C₂-C₂₀ alkenyl, C₃-C₂₀ cycloalkyl, C₆-C₂₀ aryl, C₇-C₂₀ alkylaryl or C₇-C₂₀ arylalkyl group, optionally containing at least one heteroatom, and at least two of said R₁-R₃ groups can also be joined to form a cycle, with the proviso that at least one of R₁ and R₂ is COOR⁴ and that when R₂ is COO-i-octyl and R is i-octyl, at least one of R₁ and R₃ are different from hydrogen;

- an alkylaluminum compound; and optionally,
- at least one electron-donor compound (external donor).

9. (previously presented) The catalyst according to claim 8 in which the alkylaluminum compound is a trialkyl aluminum compound.
10. (previously presented) A process comprising (co)polymerizing olefins, the (co)polymerization being carried out in the presence of a catalyst comprising the product of the reaction between:
 - a solid catalyst component comprising Mg, Ti, halogen and an electron donor selected from thiophene derivatives of formula (I):



wherein R is a branched alkyl group, R₁, R₂ and R₃, same or different, are hydrogen, halogen, R⁴, OR⁴, COOR⁴, SR⁴, NR⁴₂ or PR⁴₂, wherein R⁴ is a linear or branched C₁-C₂₀ alkyl, C₂-C₂₀ alkenyl, C₃-C₂₀ cycloalkyl, C₆-C₂₀ aryl, C₇-C₂₀ alkylaryl or C₇-C₂₀ arylalkyl group, optionally containing at least one heteroatom, and at least two of said R₁-R₃ groups can also be joined to

form a cycle, with the proviso that at least one of R₁ and R₂ is COOR⁴ and that when R₂ is COO-i-octyl and R is i-octyl, at least one of R₁ and R₃ are different from hydrogen;

- an alkylaluminum compound; and optionally,
- at least one electron-donor compound (external donor).